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MEDICAL EVIDENCE.

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THE importance to the medical man of a knowledge of the principles of Evidence will hardly be questioned by persons familiar with the practice of the courts. In his ordinary experience he may at any time become cognizant of facts which may be the subject of legal investigation, and upon which his testimony may be required, either as an ordinary witness or as an expert. Upon the elucidation of these facts or the expression of his opinions by the medical witness, the security of life, reputation and property depend. For his own sake, and for the credit of his profession, it becomes an imperative duty that these grave and important interests should not be jeopardized by his ignorance, negligence or apathy. Society, too, whose most weighty concerns are intrusted to his charge, has a right to demand that the medical man should bring to the assistance of the courts of justice the best and ripest fruits of his professional knowledge and experience. The correctness of these propositions will hardly be questioned by the intelligent practitioner, but it is not less certain that the value of these qualifications will be impaired by his ignorance of the rules and principles of evidence, and that the finest professional attainments and the most rigid conscientiousness will not supply the want of this special knowledge.* One reason why most medical men are less familiar with the subject than some other classes of the community, is their exemption from jury service, which, however essential to the proper discharge of their professional duties, prevents their acquiring that practical knowledge which can only be partially and imperfectly learned from books. Undoubtedly, also, no unimportant cause of the unmerited reproach which has sometimes been cast upon the medical profession, in connection with this subject, arises from the fact that it has no tribunal which can expose and punish quacks and pretenders, whose misdeeds are often attributed to regular practitioners. In this respect the lawyers have an advantage over their medical brethren, as the court can not only expel a member of the bar who has been proved guilty of culpable misconduct, but, what is of more consequence, wholly deprive him of professional practice. This power of enforcing its decrees in the only way which is really effective—through the pockets of the offender—is the touchstone of trickery. The primary cause of this trouble springs from the impossibility of subjecting the claims of quackery to the test of publicity. The secrets of the sick chamber are known to few; the patient may get well in spite of bad treatment, and thus the empiric receive the credit which belongs to Nature, and achieve a success far beyond that of many honest and faithful practitioners. Dead men tell no tales, and living victims are not anxious to make public confession of their indiscretions or gullibility. But the legal charlatan is subjected to the scrutiny of his professional associates, and his position at the bar of public opinion depends upon his status at that of the court. The greater facility in tracing the operations of the member of the legal profession, as well as the greater certainty in the subjects treated of, makes the task of selection and discrimination in the choice of an adviser easier to the average man; and thus it is that the person who wouldn't trust a dollar in the hands of an incompetent attorney will risk his life in the clutch of the piratical physician. The opportunity which is afforded by the courts to the medical man, as a witness in important cases, to vindicate the skill, learning and integrity of the profession, and to render essential service in the cause of justice and humanity, should be more highly esteemed than it seems to be by medical men.

* "There is no greater or more common mistake among medical men than to suppose that an experienced practitioner is necessarily a skilful medical expert or a safe medical witness."—Lecture by Prof. Christison before the Royal College of Physicians, Edinburgh. Lond. and Edin. Journ. of Med. Science, Nov., 1851, p. 402.

The medical man may be summoned before the courts, either as a witness to facts which have fallen under his own observation, or to give his opinion in a case where, although the facts may be unknown to him, he is specially conversant with the subject-matter which they illustrate. Peculiar skill, experience, or education in relation to the question at issue, are the qualifications which fit him to testify as an expert. In the former case he is in the position and receives the fees of an ordinary witness, which are charged in the costs, and are ultimately paid by the losing party; while in the latter his compensation is the result of an agreement with his employers, and comes out of their pockets. We shall have occasion hereafter to consider the evil consequences to the cause of justice of this relation between the expert and the party making use of his services. An interesting English decision in regard to the distinction between the rights of the ordinary witness and the expert in respect to compensation was made in the case of Webb *v.* Page,* in which a skilled witness refused to testify until paid for his services and loss of time. Mr. Justice Maule then held that "the former is bound, as a matter of public duty, to speak to a fact which happens to have fallen within his knowledge; without such testimony the course of justice must be stopped. The latter is under no such obligation. There is no such necessity for his evidence, and the party who selects him must pay him." The question whether a witness is bound to attend court on being served with a subpœna when he has no knowledge of the facts to be proved, is one of considerable importance to medical men. In a case before the late Lord Campbell, in 1858, the learned judge stated, in answer to an inquiry, that a scientific witness was not bound to attend upon being served with a subpœna, and that he ought not to be subpœnaed. If the witness knew any question of fact he might be compelled to attend, but he could not be compelled to give his attendance to speak to matters of opinion. Subsequent decisions to the same effect have settled the rule in England,† and we apprehend it would be generally adopted by the courts in this country. In a case‡ in the U. S. District Court, Mr. Justice Sprague refused to compel the attendance of an interpreter who had neglected to obey a subpœna. The learned judge said that "a similar question had heretofore arisen as to experts, and he had declined to issue process to arrest in such cases. When a person has knowledge of any fact pertinent to an issue to be tried, he may be compelled to attend as a witness. In this all stand upon equal ground. But to compel a person to attend merely because he is accomplished in a particular science, art, or profession, would subject the same individual to be called upon in every cause in which any question in his department of knowledge is to be solved. Thus, the most eminent physician might be compelled, merely for the ordinary witness fees, to attend from the remotest part of the district in which a medical question should arise. This is so unreasonable that nothing but necessity can justify it. The case of an interpreter is analogous to that of an expert. It is not necessary to say what the Court would do if it appeared that no other interpreter could be obtained by reasonable effort."

Although in theory the expert is supposed to be profoundly conversant with the question on which he gives his opinion, yet in practice considerable latitude has been allowed by the courts. In Folkes *v.* Chadd,* the earliest reported case on the subject, Lord Mansfield defined experts as "persons professionally acquainted with the science or practice in question." The general doctrine is well expressed by Mr. Smith in his note to Carter *v.* Boehm.† "On the one hand," he observes, "it appears to be admitted that the opinion of witnesses possessing peculiar skill is admissible wherever the subject-matter of inquiry is such that inexperienced persons are unlikely to prove capable of forming a correct judgment upon it without such assistance; in other words, when it so far partakes of the nature of a science as to require a course of previous habit or study in order to the attainment of a knowledge of it, while, on the other hand, it does not seem to be contended that the opinion of witnesses can be received when the inquiry is into a subject-matter, the nature of which is not such as to require any peculiar habits or study in order to qualify a man to understand it." In the application of these principles to the testimony of medical witnesses there is a great want of uniformity in judicial decisions. While many courts are disposed to allow physicians in general practice to express opinions upon questions in those branches of their profession in

* 1 Carrington and Kirwan, 23.
† Taylor's Med. Jurisprudence, 6th Amer. ed. p. 38; Redfield on Wills, 2d ed., part i. p. 155, note 46.
‡ In the Matter of Roelker, 1 Sprague's Decisions, 276.

* 3 Douglas, 157.
† 1 Smith's Leading Cases, 286 a.

which they have had little or no opportunity of acquiring practical information, the true rule would seem to require the restriction of their testimony in such cases to facts observed by them, reserving for persons of peculiar skill and experience the right to introduce their opinions in evidence. This distinction, which is too often disregarded, is recognized in some recent cases in this Commonwealth. In Baxter *v.* Abbot,* the Supreme Court held that upon the trial of an issue of the sanity of a testator, a physician who had practised for many years in his neighborhood, and had at times been his medical adviser, and who saw and conversed with him a short time before the making of his will, is competent to state his opinion of the testator's sanity, though he has not made mental disease a special study. There are sweeping *dicta* of the learned judge who delivered the opinion in this case which have led some writers† to give a broader interpretation of the law than is warranted by the decision of the Court. The decision has been commented on by the Court in a later case, to which we shall have occasion to refer; and in admitting the opinion of the family physician, who was not an expert, in regard to the testator's sanity, the law, as interpreted in this State, was stretched to its extreme limit. In Commonwealth *v.* Rich,‡ the Court decided, in accordance with the distinction just referred to, that a physician who had not made the subject of mental disease a special study, but who, when his patients have required medical treatment on insanity, has been accustomed to call in the services of a physician who had made this subject a special study, or to recommend the removal of the patient to an insane hospital, is not competent to testify as an expert upon a hypothetical case put to him; nor to testify whether a person living in his neighborhood and well known to him, but who had never been his patient, was competent to apply the rules of right and wrong, in a state of circumstances concerning which he was under high excitement or the influence of an uncontrollable impulse. And in the still later case of Commonwealth *v.* Fairbanks,§ the Court decide that the opinion of a witness who is not an expert, as to the sanity of one charged with crime, is incompetent, although based upon his own knowledge of facts. The Court evidently regard the case of Baxter *v.* Abbot, just referred to, as the extreme limit of the law on this subject, and remark, "it was only held, by a decision not unanimous, that the opinion of a family physician as to the sanity of a testator might be introduced in evidence. But in general, where the jury have the facts in detail, they are as competent to form a correct judgment as the witness; and the practical experience of those familiar with courts shows that the defence of insanity is one easy to be made, and favorably listened to by juries. The rule, therefore, should not be extended beyond the adjudicated cases."

The qualifications of special knowledge and experience in an expert were insisted on by our Supreme Court in the case of Emerson *v.* Lowell Gas Light Co.,* which was tried in 1863. It was held that in an action to recover damages for injuries to the plaintiff's health from the escape of gas, a physician who has been in practice for several years, but who has had no experience as to the effects upon the health, of breathing illuminating gas, is incompetent to testify thereto as an expert. And experience in attending upon other persons who were made sick by breathing gas from the same leak was held insufficient. Mr. Justice Chapman, who delivered the opinion of the Court, remarked that "the mere fact that the witness was a physician, would not prove that he had any knowledge of gas without further proof of his experience, for it is notorious that many persons practise medicine who are without learning; and a physician may have much professional learning without being acquainted with the properties of gas, or its effect on health. And the observation of a man who is at the time inexpert is of no value, and does not qualify him to give opinions." In a previous case† it was decided that a college graduate, who testifies that at college he studied chemistry with a distinguished chemist, that he has taught chemistry five years, is acquainted with gases, has experimented with them and used apparatus, and knows how camphene is made, but has never experimented with lamps or made or used camphene, or paid particular attention to fluid or camphene lamps, is competent to testify as an expert on the safety of a camphene lamp which he has never before seen. In some States the reasonable rule which requires that the medical expert should be engaged in the practice of his profession is not enforced—a study of it being held sufficient.‡ In a recent case in Mississippi§ it

* 7 Gray, 71.
† See Redfield on Wills, 2d ed., part i. pp. 153-154.
‡ 14 Gray, 335. § 2 Allen, 511.

* 6 Allen, 146. † Bierce *v.* Stocking, 11 Gray, 174.
‡ Tullis *v.* Kidd, 12 Alabama, 642.
§ New Orleans &c. Co. *v.* Allbritton, 38 Miss. 242.

was decided that it is not necessary that a physician should be a graduate of a medical college, or have a license from any medical board to practise, in order to render him competent to testify as an expert in relation to matters connected with his profession. Mr. Justice Aldis, of the Supreme Court of Vermont, remarked in a late case,* that physicians in general practice, and nurses accustomed to attend the sick, are experts in regard to the mental capacity of sick persons; but while the first proposition seems too broadly stated, the second is utterly untenable, and its adoption would inflict on courts and juries an amount of dogmatic garrulity and theorizing twaddle which would obscure rather than enlighten their minds. In all fairness we must say that courts that allow persons of merely nominal qualifications to assume the responsible position of experts, cannot complain if they are misled by their blind guides. In the Southern and Western States there may be some excuse for intrusting to incompetent hands the duties which otherwise could not be performed at all, but we regret to see such a course adopted in States where the necessity for it does not exist.

The fact that Courts permit persons of various degrees of knowledge and experience to testify as experts should make the medical man who cares anything for the honor of his profession, or for his own reputation, solicitous that the confidence reposed in him should not be abused. He should not, therefore, thrust himself forward to give an opinion in a matter of which he knows little, or nothing. The duty of the expert is to enlighten the court and jury, and he certainly has no right to set himself up as an instructor, when he is ignorant of what he assumes to teach. Nor is it politic for such a man to attempt to palm off his inexperience for experience, and his misinformation for knowledge. Under the severe scrutiny of counsel in cross-examination his pretensions will be exposed, and the cause which he is expected to benefit may be hopelessly ruined by his blundering incapacity. The wish to appear learned sometimes influences the witness to make a pedantic use of technical terms, and even professional men who are not troubled with a desire to parade the treasures of their vocabulary often use language which, although intelligible enough to the scientific student, is wholly beyond the comprehension of the court and jury. The following anecdotes, which we take from an English work of high authority, illustrate the ridiculous extent to which this practice has sometimes been carried. "In a case of alleged child-murder, a medical witness being asked for a plain opinion of the cause of death, said that it was owing 'to atelectasis and a general engorgement of the pulmonary tissue.' On a trial for an assault which took place at the assizes, some years since, a surgeon in giving his evidence informed the court that, on examining the prosecutor, he found him suffering from a severe contusion of the integuments under the left orbit, with great extravasation of blood, and ecchymosis in the surrounding cellular tissue, which was in a tumefied state. There was also considerable abrasion of the cuticle.' *Judge:* 'You mean, I suppose, that the man had a bad black eye.' *Witness:* 'Yes.' *Judge:* 'Then why not say so at once?'"* Although it is sometimes almost impossible for the medical witness to avoid the use of technical terms, without the sacrifice of precision and accuracy, yet in general they need be employed but sparingly, and their meaning should in all cases be explained.

While it is obviously important that the opinions of the expert should be made clear to the jury, it is of still more consequence that they should be conscientiously and deliberately formed. And here the witness must be on his guard against the unconscious bias which is the result of entertaining preconceived views on the question at issue. This bias is liable to be increased by the consciousness that the parties for whom he appears expect him to support a theory favorable to their side of the case. The tendency of mankind to generalize their knowledge, which has often been noticed by philosophers, leads them to see in new facts whatever confirms their established views, and to ignore or pervert what conflicts with them. It has been said by an eminent philosophical writer that this tendency to look at realities only through the spectacles of an hypothesis, is perhaps seen most conspicuously in the fortunes of medicine.† Especially should this propensity

* Fairchild v. Bascomb, 35 Vt. 398.

* Taylor's Med. Jur., 6th Am. Ed., 53.

† Hamilton's Metaphysics, p. 53: See also Discussions, p. 242. A more recent thinker, whose bold generalizations sometimes strikingly illustrate the habit which he criticizes, remarks that "an average intellect when once possessed by a theory can hardly ever escape from it. This is the case with the ordinary practitioners, whether in medicine or any other department, extremely few of whom are willing to break up trains of thought to which they are inured. Though they profess to despise theory, they are, in reality, enslaved by it. All that they can do is to conceal their subjection by terming their theory a necessary belief." Buckle's Hist. of Civilization, vol. ii. pp. 536, 537. The essential qualifications of

be guarded against on the witness stand, where a state of facts may be presented which would naturally lead the expert to change his views, if he could free himself from the clinging bias of prejudice or self-interest. He should, in such cases, remember that the truth is what he is sworn to state, no matter what may be the consequences to his pride of opinion or the interests of his employers, and an unconscious or intentional disregard of this simple rule has produced those deplorable contradictions and inconsistencies which have been so often commented on by the courts. In reference to this matter, an eminent authority, Mr. Justice Grier of the Supreme Court of the United States, made the following remarks in delivering the opinion of the Court in Winans *v.* New York and Erie Railway.* "Experience," said the learned judge, "has shown that opposite opinions of persons professing to be experts may be obtained to any amount; and it often occurs that not only many days, but even weeks, are consumed in cross-examinations to test the skill or knowledge of such witnesses, and the correctness of their opinions, wasting the time and wearying the patience of both the court and jury, and perplexing instead of elucidating the question involved in the issue." And in his charge to the jury in the recent trial of Andrews in this Commonwealth, Chief Justice Chapman thus alludes to the conflicting opinions of the medical experts in the case. "I think the opinions of experts are not so highly regarded as they formerly were. For while they often afford great aid in determining facts, it often happens that experts can be found to testify to any theory, however absurd."† To these opinions, we may add that of the late Chief Justice of Vermont, a jurist of high reputation, who, in his valuable work on Wills, remarks that "experience has shown, both here and in England, that medical experts differ quite as widely in their inferences and opinions, as do the other witnesses. This has become so uniform a result with medical experts of late, that they are beginning to be regarded much in the light of hired advocates, and their testimony as nothing more than a studied argument in favor of the side for which they have been called. So uniformly has this proved true in our experience that it would excite scarcely less surprise to find an expert called by one side, testifying in any particular, in favor of the other side, than to find the counsel upon either side arguing against their clients and in favor of their antagonists."* It is proper to remark here that Judge Redfield, in making these observations, disclaims any imputation on the integrity of medical experts, but regards their conflicting testimony as the natural consequence of the manner in which this class of witnesses are employed by the parties in a case.

These views in regard to the unsatisfactory character of the testimony of medical experts are not peculiar to the legal profession; they have been emphatically expressed by distinguished medical men both in this country and in Europe. "The task of instructing the tribunals," says Dr. John Gordon Smith, "is often delegated to those who are the least qualified; and it is absolutely disgusting to observe the displays that are frequently and unavoidably made on the part of incompetent substitutes. Lads whose knowledge of the medical sciences can be little more than a name, and the whole of whose practice in the medical art can have extended no farther than spreading a plaster, mixing a draught, compounding a pill, administering an enema, or at the utmost extracting a tooth and performing the operation of phlebotomy, are appointed to enlighten the judges of the land, who are, in all probability, deeper read in the medical sciences, than the sage instructors of these witnesses themselves."† "The testimony of really competent witnesses," remarks an eminent authority on mental unsoundness,‡ "may be contradicted by that of others utterly guiltless of any knowledge of the subject, on which they tender their opinions with arrogant confidence—for ignorance is always confident—and the jury is seldom a proper tribunal for distinguishing the true from the false, and fixing on each its rightful value. If they

the skilful medical practitioner have been well discriminated by Bain—Senses and the Intellect, p. 629.

* 21 Howard, 101.

† Boston Med. and Surg. Journal, Feb. 25, 1869.

* Redfield on Wills, 2d ed., part i. pp. 103, 105. The writer has special reference to medical experts on insanity. He cites in support of his views, the opinion of Mr. Justice Davis of the Supreme Court of Maine, who, after saying that he considers juries far more trustworthy than experts on the subject of insanity, remarks, "If there is any kind of testimony that is not only of no value, but even worse than that, it is, in my judgment, that of medical experts. They may be able to state the diagnosis of the disease more learnedly; but upon the question, whether it had, at a given time, reached such a stage, that the subject of it was incapable of making a contract, or irresponsible for his acts, the opinion of his neighbors, if men of good common sense, would be worth more than that of all the experts in the country." P. 101.

† An Analysis of Medical Evidence, London, 1825, pp. 36, 37.

‡ Ray on the Medical Jurisprudence of Insanity, 4th ed. § 45.

are obliged to decide on professional subjects, it would seem that they should have the benefit of the best professional advice. This, however, they do not always have; and consequently the ends of justice are too often defeated by the high-sounding assumptions of ignorance and vanity." These remarks of Dr. Ray may be fitly supplemented by those of an eminent English practitioner. "There can be few better tests of a sound understanding," says Sir Henry Holland,* "than the right estimation of medical evidence; so various are the complexities it presents, so numerous the sources of error. It must be admitted, indeed, that this matter of medical testimony is too lightly weighed by physicians themselves. Else whence the so frequent description of effects and causes by agents put only once or twice upon trial; and the ready or eager belief given by those who, on other subjects, and even on the closely related questions of physiology, would instantly feel the insufficient nature of the proof. Conclusions requiring for their authority a long average of cases, carefully selected, and freed from the many chances of error or ambiguity, are often promulgated and received upon grounds barely sufficient to warrant a repetition of the trials which first suggested them. No science, unhappily, has abounded more in false statements and partial inferences; each usurping a place, for the time, in popular esteem; and each sanctioned by credulity, even where most dangerous in application to practice. During the last twenty years, omitting all lesser instances, I have known the rise and decline of five or six fashions in medical doctrine, or treatment; some of them affecting the name of systems, and all deriving too much support from credulity, or other causes, even among medical men themselves."†

The principal cause of these contradictions in medical testimony under the present system of practice it is not difficult to understand. A witness who has expressed his judgment on facts and views submitted to him by interested parties, is, in general, so far committed in their favor as to be unable to give an unbiassed opinion in the case. The remedy seems simple and practicable, but though long ago suggested it has never yet been tried. It is to have experts of experience and ability in their several departments appointed by commissioners or by the court, and their salaries fixed by judicial or legislative authority and paid out of the public treasury. In this way experts, being free from the influence of interested parties, would have little or no temptation to give one-sided opinions. These suggestions, which have been urged by Taylor, Redfield and Ray, will, we trust, be carried out at no distant day, and we understand that a plan for a commission of this kind will soon be laid before the Legislature of this State. But so long as the present system remains in force, it is the duty of the medical expert to take care that the peculiar relation in which he stands towards his employers do not warp his judgment and prevent him from giving an impartial and unbiassed opinion in the case.

His opinion, it is important to remember, should be based exclusively on the medical facts of the case. He is not entitled to draw inferences of fact from the evidence, for this would require him to pass upon the truth of the testimony, which is a question for the jury; but he may be asked his opinion on a known or hypothetical state of facts. Thus, where the facts are doubtful, and remain to be found by the jury, it has been held improper to ask an expert who has heard the evidence, what is his opinion upon the case on trial; though he may be asked his opinion on a similar case hypothetically stated.* On the same principle, the opinion of a medical man that a particular act for which a prisoner was tried was an act of insanity, has been ruled inadmissible.† If the facts assumed in a hypothetical question propounded to an expert are not themselves proved substantially, the answer to such question is not to be considered by the jury.‡ In a recent Massachusetts case§ it was held that there is no established form for questions to experts in this Commonwealth, and any question may be proper which will elicit their opinions as to the matters of science or skill which are in controversy, and at the same time exclude their opinion as to the effect of the evidence in establishing controverted facts. "Questions adapted to this end," said Mr. Justice Chapman in delivering the opinion of the Court, "may be in a great variety of forms. If they require the witness to draw a conclusion of fact, they should be excluded. But where the facts stated are not compli-

* Chapters on Mental Physiology, pp. 1–3.

† The conflict of opinion among medical witnesses has lately been deplored by the highest medical and legal authorities—Winslow, Mayo, Marc, and Mittermaier—Wharton and Stille, Med. Jur., p. 71.

* Sills v. Brown, 9 Carrington & Payne, 601. McNaughton's Case, 10 Clark & Finnelly, 200. Woodbury v. Obear, 7 Gray, 467. United States v. McGlue, 1 Curtis, C. C. 1.

† Rex v. Wright, Russell & Ryan, 456.

‡ Hovey v. Chase, 52 Maine, 304.

§ Hunt v. Lowell Gas Light Co., 8 Allen, 169.

cated, and the evidence is not contradictory, and the terms of the question require the witness to assume that the facts stated are true, he is not required to draw a conclusion of fact." In a very late case in this State,* a question proposed to an expert was excluded because it sought to establish an historical fact, under the guise of a scientific opinion. It is a well-settled rule of law that witnesses cannot state their views on matters of legal or moral obligation, nor on the manner in which other persons would probably be influenced, if the parties acted in one way rather than in another. Therefore the opinions of medical practitioners upon the question whether a certain physician had honorably and faithfully discharged his duty to his medical brethren, have been rejected.† But this rule does not prevent a medical man from testifying to a fact derived from his own observation, from which another medical man's incapacity or unfaithfulness might be inferred. Thus, in an action to recover damages for a personal injury, a physician was allowed in a recent case‡ to testify what had been another physician's previous treatment of his patient, what effect it had upon him, and whether or not he saw any evidence that the patient had been injured by such treatment. It was held, in the same case, that the statement of a patient to his physician as to the character and seat of his sensations, made for the purpose of receiving medical advice, are competent evidence in his favor in an action to recover damages for a personal injury, even though such statements were not made till after the action was brought.§ This is an exception to that rule of law which confines expressions of the bodily or mental feelings of a party, to prove the existence of such feelings to those made at the time. In both of these cases the admission of this testimony is contrary to the general principle of evidence which excludes hearsay, because it cannot be subjected to the ordeal of a cross-examination to test its truth. It is admitted, however, from the necessity of the case, as this is the only way by which the condition of a patient can be made known to his physician, who has a fair opportunity of ascertaining its correctness by observation, and it is for the interest of patients to tell the truth under these circumstances. And as the opinion of the physician would be competent evidence in such a case, it would be absurd to keep from the jury the reasons for his opinion, as they would then be unable to determine its soundness. But an expert will not be allowed to express an opinion upon the value of the opinions of other witnesses in the case. It is not his province or duty to make such comparisons.* As has been previously remarked, the opinion of an expert is only admissible upon questions of science or skill, and is not competent in a question respecting which persons of ordinary intelligence can as well draw conclusions.† Thus, where a corpse was found partially burned, and certain portions of the body covered with loose clothing were not burned, the inference of a medical man that the person must have been dead before the fire broke out, as otherwise the covering would have been disturbed, was held inadmissible.‡ And in a recent case in Alabama, it was held that a person having no veterinary or medical knowledge is competent to testify, upon the trial of an indictment for wilfully injuring a mule, to the damage done to a mule by its receiving a gun-shot wound.§ Cases have often occurred where a medical witness has expressed opinions out of court in regard to the nature or extent of his patient's injuries, or in reference to other matters affecting the question of damages and the liability of other parties to pay them. For the purpose of showing his bias or partial feeling in order to discredit his testimony, it is competent to show by other witnesses that he has expressed such an opinion upon the merits and probable result of the case.‖

The question has often been discussed how far the expert in forming his opinions should rely upon the authority of others, and how much upon his personal experience. Without considering the metaphysical refinements about the nature and sources of Belief which have been ingeniously presented by philosophers, it is clear that personal experience can form but a small part of the available knowledge of the skilled witness, for the results of his own observation and reflection are inappreciable compared with the stores of information which have been accumulated by the labors of others. The true test would seem to be, that whatever in the writings of his profes-

* McMahon v. Tyng, 14 Allen, 171.
† Greenleaf on Evidence, § 441.
‡ Barber v. Merriam, 11 Allen, 322.
§ But the narration by a patient to his physician of the cause of injuries received several months previously is not admissible as evidence of that cause. Chapin v. Inhabitants of Marlborough, 9 Gray, 244.

* Haverhill Loan and Fund Association v. Cronin, 4 Allen, 141.
† Hovey v. Sawyer, 5 Allen, 556.
‡ People v. Bodine, 1 Denio, 281.
§ Johnson v. State, 37 Alabama, 457.
‖ O'Neill v. City of Lowell, 6 Allen, 110.

sional brethren so far commends itself to the judgment of the witness as to be assimilated by his mind, and incorporated with his own knowledge, is a legitimate ground for the expression of an opinion, but those ideas which have not been thus digested and blended into a complete whole, but are merely remembered as having been uttered by authorities, however eminent, are not the proper basis for such an opinion. The man who, without being an extensive reader, has reflected deeply on what he has observed and read, and is really master of his information, is a far more trustworthy witness than he who staggers under a load of erudition which only encumbers and confuses his mind. "Beware of the man of one book," says the proverb, and the man of many books sometimes deserves to be the object of similar distrust. To make study subsidiary to observation, to read, not to contradict and confute, nor to believe and take for granted, but to weigh and consider, was justly regarded by Lord Bacon as the perfection of nature and experience.

The medical expert should not only make himself thoroughly familiar with the subject on which his opinion is expected, but should pay the closest attention to the evidence given by the other witnesses in the case. Great care and discrimination are necessary in this respect, for the hypothetical case submitted to him will often be so skilfully framed as to present an entirely different aspect to the jury from the real case which it partially resembles, and the incautious witness may be led into admissions which he never intended to make. In meeting the tactics with which a wary and circumspect lawyer may endeavor to perplex and disconcert him, the witness will need a large stock of coolness and patience. The opposing counsel, in questioning him closely as to the grounds of his opinions, his general professional qualifications, or special experience in regard to the question at issue, may try to involve him in contradictions, and in this wordy warfare his good temper and good judgment will be severely tested. He should bear in mind that although the object of the advocate may be forensic victory, that of the witness should be the discovery of truth. The code of legal ethics justifies the former in eliciting only those facts and opinions which favor his side of the case, but the oath of the latter requires him to tell the whole truth. The *suppressio veri* is as flagrant a violation of that oath as the *suggestio falsi*. After his examination by counsel, opportunity will always be given to the witness to disclose material facts not brought out by previous inquiry. And in any event the rights of the parties are liable to be jeopardized by a witness who forgets the interest of truth in his desire to make a display of controversial ability. The triumph over opposing counsel is dearly purchased at the sacrifice of substantial justice. A disposition to give his testimony with impartiality and fairness will have much greater influence with the jury than the utmost skill of fence. It sometimes happens that a witness, instead of replying to the question put to him, makes a general answer by way of anticipating future interrogatories, or indulges in a dissertation on the general subject, and the result is a confusion of ideas and a protracted cross-examination. Where several questions are compressed into one, the witness is in danger of giving an answer to the particular question which happens to fix his attention, instead of asking to have the inquiries made separately, as he has a perfect right to do. The consequence is that the counsel for the other side makes the answer appear responsive to all the questions thus compressed together, or dwells upon its inapplicability in this respect, so that the views of the witness are misrepresented, when it is too late to change his testimony. In giving his opinion, care should be taken by the expert to avoid the two extremes of hesitancy and dogmatism. Unwillingness to express an opinion where life or reputation are concerned has led many a witness, in his anxiety not to make a mistake, into errors greater than those he feared. Abernethy was once sharply reproved for refusing to give his opinion in a case, and was told by the judge, "You were called for the purpose of giving an opinion." In many important cases opinions form the evidence on which the issue turns, and they are frequently more trustworthy than facts, which are often inaccurately observed or incorrectly reported. That eminent medical philosopher, William Cullen, observes that there are more false facts in the world than false hypotheses to explain them—a remark which recent scientific and historical research has abundantly verified. A conscientious expert need have no harassing anxiety about the correctness or the consequences of his opinion after he has taken all reasonable care to ensure its accuracy, for on these points the jury are to decide. The witness may be mistaken about a fact depending on the evidence of the senses, but about the fact of his entertaining an opinion, no matter whether that opinion is

right or wrong, he cannot be mistaken. This is all that the law demands of him, and in giving it, any responsibility for the effect which it may have upon the lives or fortunes of others is shifted from him to the paramount authority which has required its expression.

The witness should not reply to a question until he clearly understands it, and should then give his answer in perspicuous and accurate language. Undue haste in expressing an opinion before the facts on which it is founded are thoroughly comprehended will involve him in contradictions and inconsistencies; and the same result will follow want of precision in the use of words. As the court and jury can have no other evidence of the views of the witness than is afforded by his own language, which is the natural medium for their expression, they will be justified in supposing that he means what he says, and it is his own fault if he conveys a different impression. And as the lawyers will naturally turn all the shortcomings of a witness to the advantage of their own clients, he cannot complain if the discrepancies of his testimony are held up to the jury in an unfavorable light. While care should be taken by the witness to avoid a flow of irresponsive, unmeaning, and irrelevant testimony, he should also be on his guard against a suspicious reticence. He will certainly bring discredit on himself and the cause he represents, if important and manifest parts of the truth, which ought to have been given in his evidence-in-chief, are wrung from him by a cross-examination. This is an example of what Paris and Fonblanque call "costive retention," which is a distressing infirmity of some witnesses. The evidence thus forced from an unwilling witness will naturally have much weight with the jury in favor of the other side, and the Law allows great latitude in the examination of a person who shows a disposition to evade reasonable inquiry.

Medical writers and practitioners have often complained that they are not permitted to read professional treatises to the jury in support of their opinions, and the reasons for the exclusion of this kind of evidence have sometimes been misrepresented and misunderstood. It has been vehemently urged by these writers that as medical testimony altogether is little else than a reference to authority, the mere fact that the authors of these books cannot be placed under oath, should not prevent their writings from being received in evidence, for it is said that the act of publication argues as solemn a sense of responsibility as any oath could impose or enforce. "Would Paris and Fonblanque," it is asked, "be better authority if they swore to it before the twelve judges"? It is also maintained that as lawyers are allowed to quote legal treatises, there is no good reason why medical men should not be entitled to a similar privilege. Dr. Beck, in his valuable work on Medical Jurisprudence, has inferred from the fact that medical books have often been referred to without objection in trials in this country, that the rule of exclusion does not prevail here,* but he is undoubtedly mistaken if he supposes that their admission, which was conceded as a privilege, could be enforced as a right. Whenever objection has been made, they have generally been excluded.† The truth is that the rule of exclusion is no more rigid in regard to medical than to legal works. The latter are often read in argument to inform the mind of the court, but never as evidence. The decisions of the Supreme Court of a State or of the United States are binding in certain cases upon inferior tribunals, and are therefore cited for that purpose, but other reports and elementary works do not have this controlling influence. Practically the exclusion of medical books works no disadvantage to the expert, for he is allowed to give an opinion and the reasons for it, which may be to some extent founded on books as a part of his general know-

* In the 11th edition of this work, revised by Dr. Gilman, these remarks have been omitted.

† In England the rule of exclusion has long prevailed. In the case of Collier v. Simpson, 5 Carrington & Payne, 73, the Court refused to allow the works of Sir Astley Cooper and Dr. Merriman to be introduced in evidence. Chief Justice Tindall then said:—"I do not think that the books themselves can be read, but I do not see any objection to your asking Sir Henry Halford his judgment, and the grounds of it, which may in some degree be founded on books as a part of his general knowledge." At the trial of Rogers for murder, in this State, in 1844, Chief Justice Shaw presiding, medical books were admitted by the Supreme Court, but in subsequent cases the same Court has excluded them. In Commonwealth v. Wilson, 1 Gray, 337, which was also a murder trial, the defence was insanity. It was there decided that neither books of established reputation on the subject of insanity, whether written by medical men or lawyers, nor statistics of the increase of insanity, as stated by the court or counsel on the trial of another case, can be read to the jury. The grounds of this decision are thus stated in the opinion of the Court delivered by Chief Justice Shaw:—"Facts or opinions on the subject of insanity, as on any other subject, cannot be laid before the jury except by the testimony under oath of persons skilled in such matters. Whether stated in the language of the court or of the counsel in a former case, or cited from the works of legal or medical writers, they are still statements of fact, and must be proved on oath. The opinion of a lawyer on such a question of fact is entitled to no more weight than that of any other person not an expert. The principles governing the admissibility of such evidence have been fully considered by this Court since the trial of Rogers; and the more recent English authorities are against the admission of such evidence." See also Washburn v. Cuddihy, 8 Gray, 430. Contra, Bowman v. Woods, 1 Iowa, 441.

ledge. It is obvious that the court and jury seeking enlightenment on a difficult subject, can be better informed by an intelligent physician illustrating under cross-examination the facts and principles pertinent to the case, than by a learned authority whose general doctrines are not easily applied by the unprofessional mind to the particular question at issue. Medical science is progressive, and the author quoted may have changed his views since his work was written, or been left behind by the advancing tide of thought and knowledge. Then, too, he may have written in support of a theory, rather than in the interests of truth, and his work may thus lack the impartiality which can alone entitle it to the confidence of the jury. In thus preferring the opinion of an intelligent medical man who is presumed to have mastered the question at issue, and to be familiar with the latest phases of professional thought, as derived from study and reflection, aided by the results of his personal experience, the Law pays a higher compliment to the witness than if it permitted him to confuse the court and jury by the citation of what would often prove to be unintelligible, and therefore unsatisfactory authorities. But aside from all this, every party to an action has the right to have the evidence against him delivered under the sanction of an oath, and to have the opportunity of sifting the opinions of a witness, and testing their soundness by cross-examination, and the absence of these two conditions in the case of medical books is sufficient reason for their exclusion as evidence.

Another question about which medico-legal writers are at variance, relates to those confidential communications of the patient to his physician which the Law may require the latter to disclose on the witness-stand.* Here, it is said, is an unjust discrimination between the lawyer and the medical man, for the former is not compelled to reveal communications made to him by his client. But the reason for the distinction does not rest, as has been erroneously supposed, upon favoritism for the lawyer, but is based on a regard for the administration of justice. Unless such a protection were extended to counsel, the business of the courts could not go on, for no man would dare to intrust the enforcement of his claims to a legal adviser, and thus the interests of society would suffer. But it is obvious that the withholding of medical secrets may be equally detrimental in this respect, for the physician or surgeon is frequently made the depositary of information seriously affecting the rights of others. In disclosing these communications by order of court, he is clearly violating no confidence, for he yields to a paramount authority which has the legal right and power to enforce its decree. This view of the case, which has been well expressed by Dr. John Gordon Smith in his admirable *Analysis of Medical Evidence*, is sustained by Taylor, Elwell, and other authorities on Medical Jurisprudence. No medical man is legally bound to reveal communications of this character, unless required to by the court, and it would ordinarily be regarded as a breach of professional propriety to make a voluntary disclosure of them. Cases may arise, of course, where the promotion of justice or the detection of crime might lead the physician to adopt a contrary course; and the conduct of Dr. Mott, in furnishing the police with a description of the burglar to whom he had given surgical treatment, will readily recur to the profession as one which occasioned considerable discussion at the time of its occurrence.* In some States there are statutes which exempt the medical man from revealing professional secrets on the witness stand, but the rule of the common law still prevails in most of the United States.

The most difficult questions with which judicial tribunals have to deal are those of mental unsoundness, and there can be little doubt that the frequency and success with which this defence has been put forward to shield the criminal from punishment has created among dispassionate observers considerable distrust of this kind of evidence. But it is obvious that the greatest difficulties encountered by the medical expert on insanity are inherent in the subject itself. In the ordinary cases which require the investigation of medical

* This important point was decided in the great case of the Duchess of Kingston, 11 Hargrave's State Trials, 243, 20 Howell's State Trials, 643. Lord Mansfield said, on that occasion, "If a medical man was voluntarily to reveal these secrets, to be sure he would be guilty of a breach of honor and of great indiscretion; but to give that information which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever." In Greenough v. Gaskell, 1 Mylne & Keen, 102, Lord Chancellor Brougham has clearly illustrated the reason for the exception to the rule in favor of attorneys and counsel. This exemption, which Chief Justice Best and Lord Tenterden regarded as a great anomaly in the law, and of which Chief Justice Shaw said, "that having a tendency to prevent the full disclosure of the truth it ought to be construed strictly" (Foster v. Hall, 12 Pickering, 98), is, as Lord Eldon remarked, a privilege not personal to the attorney, but is designed for the protection of the client. The subject is discussed with great ability by Vice Chancellor Bruce in Pearse v. Pearse, 11 Jurist, 52; 1 De Gex & Smale, 25.

* Elwell on Malpractice and Medical Evidence, p. 330.

men there are data by which the soundness of opinions can be tested, and the courts can safely depend on the deductions of the skilled witness. Such are the abnormal conditions which a *post-mortem* examination reveals to the eye of the chemist, or the injuries whose causes and results are explicable by the skill of the surgeon. But when from these purely physical appearances we turn to the manifestations of mental disease, we pass into the regions of uncertainty. "As medico-legal witnesses," says Forbes Winslow, "we have to deal with phenomena, of the essence or intimate nature of which we know absolutely, positively nothing."* "There is no mode," he observes, "by which we can penetrate behind the curtain, or tear aside the veil that divides the material from the immaterial—mind from matter; there is no possibility of our obtaining access to those mysterious chambers where the spiritual portion of our nature is elaborated; we have no guage, no square rule, by which we can ascertain in all cases with any approach to chemical or mathematical accuracy, an accurate idea of the actual condition of the mind, when apparently under a cloud. In the elucidation of these points we are, in a great measure, left to our own unaided mental sense—to the uncertain guidance of our deceptive experience, and, alas! often fallible judgment." To decide what degree of deviation from healthy mental life constitutes that condition in which a person is irresponsible for his actions; to trace the shadowy boundaries which separate the strange eccentricity that may color his ordinary conduct from the graver unsoundness which will invalidate his will; the natural feebleness of the faculties in old age from the insidious ravages of senile dementia; to tell where delusion ends and depravity begins, to distinguish between the craftiness of the criminal and the cunning of the lunatic, the murderous passions of the civilized ruffian and the homicidal mania of the victim of cerebral disease, is a task which, as it often baffles the skill of the masters of the science of insanity, may well perplex the judgment of courts and juries.

The objects and limits of this article will only permit us to glance at a single aspect of this many-sided subject—viz., the position of the courts in reference to the evidence admissible to prove the existence of mental unsoundness. And here we find the authorities conflicting. As we have seen, recent Massachusetts decisions restrict expressions of opinion on this subject to professional experts, allowing in one case, by a decision not unanimous, a family physician, whose opportunities of observing the testator had been very great, to give an opinion on his sanity; and only permitting other witnesses, among whom are physicians in general practice, to testify to facts. The same doctrine has been held by the Court of Appeals, the highest judicial tribunal in New York, but by a divided bench, in which three judges out of eight dissented, among the former being Mr. Justice Denio, while the Supreme Court maintained, till overruled, a contrary opinion. In Texas the same view prevails. This is also the rule in the common law courts of England, while the ecclesiastical courts adopt an opposite one. But in Connecticut, Vermont, Pennsylvania, Maryland, Ohio, Missouri, Indiana, North Carolina, Georgia, Tennessee and Mississippi, unprofessional persons are permitted to express opinions on the sanity of individuals with whom they are familiarly acquainted. The same doctrine is recognized by the U. S. Circuit Court in New Jersey.* In most of these States it is held requisite that the witness should state the facts on which his opinion is based, but in Georgia a medical witness, in contradistinction from other witnesses, may express an opinion upon the sanity of a testator, whether founded upon facts within his own knowledge or testified to by others. It would seem, on principle, that the rule in Massachusetts and New York is the correct one, for experts, who alone can give opinions on questions of science or skill, are, as Bouvier remarks, and the term implies, "persons instructed by experience," and ordinary physicians can hardly be said to have experience enough to qualify them to testify as such. As the determination of the question of insanity involves such momentous consequences, the knowledge possessed by the expert ought to be that which special study and practical training alone can give. The characteristic manifestations, often delicate and shadowy, which distinguish normal from abnormal mental action, can be detected only by the master of the science; they are lost upon the uninstructed or casual

* "Do we not in sober truth," says a profound inquirer into the philosophy of insanity, "learn more of its real causation from a tragedy like LEAR than from all that has yet been written thereupon in the guise of science?"—The Philosophy and Pathology of the Mind, by Henry Maudsley, London, 1867, p. 198.

* See the cases collected in Redfield on Wills, 2d ed., part i. pp. 140–146; Wharton and Stillé on Medical Jurisprudence, pp. 76–77. Bishop on Criminal Procedure, vol. i. ch. xxxiii.

observer. Even with the disadvantage with which the expert usually has to contend, of giving his opinion on facts and symptoms observed by others, his judgment would ordinarily be better than that of persons of no special information or experience, to whom these indications would be misleading and unintelligible. The legal anomaly in this regard, of admitting subscribing witnesses to a will to testify to the testator's sanity, which is almost universally allowed, may proceed on the ground that the testator has selected them, or that when the statute has defined the requisites of such witnesses, it is not for the courts to nullify its intent by declaring them incompetent to give evidence in regard to matters material to the issue.*

But while adherence to legal principles would seem to demand the exclusion of the opinions of all but persons skilled in the treatment of insanity, the small number of such persons, and the difficulty of procuring their attendance, have led many courts to admit the opinions of physicians in general practice. And as there is no scientific standard, no medical test by which the character of an act can be determined, in reference to its author's capacity or responsibility, that question can only be solved by a consideration of the circumstances of his life, and an inquiry into the history and condition of his family. In this point of view the testimony of unprofessional persons who have had constant opportunities of observing his conduct in his social or business relations, where, although the particular facts may have been forgotten, the impression produced by them is vividly remembered, must be of considerable weight in determining the question of his sanity. Though such persons would naturally have less knowledge on the subject of insanity than ordinary physicians, they could at all events be free from the intellectual infirmities which afflict the specialist in this difficult department of psychological inquiry, and which, as a distinguished jurist has remarked, tend to enlargement of jurisdiction. Whether the opinions of such observers, who can report the facts on which their judgment is based, so that the court and jury can test its theoretical value and experimental soundness, are not worthy to be received with those of medical men who may never have observed the alleged insane person, and who are called upon by interested parties to express an opinion upon facts and symptoms which must necessarily be imperfectly reported, or whose observation is limited to an examination of him under circumstances seldom favorable to a correct diagnosis, is a question, which, as we have seen, most courts have decided in the affirmative. But the point is one on which medical and legal writers are equally at variance. Brodie says: "It is a great mistake to suppose that this is a question that can be determined only by medical practitioners. Any one of plain, common sense, and having a fair knowledge of human nature, who will give it due consideration, is competent to form an opinion on it; and it belongs fully as much to those whose office it is to administer the law as it does to the medical profession."* Elwell, in his work on Malpractice and Medical Evidence,† devotes a chapter to this subject, in which he advocates the admission of the opinions of laymen as evidence upon alleged insanity in connection with those of the learned and experienced, while Ray is in favor of restricting the expression of opinion in judicial proceedings to persons skilled in the treatment of mental disease.‡ Orfila observes: "C'est aux lumieres et à la probité des médecins que doit être *exclusivement* reservé le droit de juger chaque espèce d'alienation mentale, et de donner aux tribunaux les seuls élémens sur lesquels puissent être raisonablement fondés des jugemens équitables."§ Redfield, from the stand-point of judicial experience, while depreciating the testimony of medical experts under the present system, agrees with Taylor and Ray in recommending the appointment by disinterested authorities of a board of medical experts to assist the court and jury in determining questions of insanity, &c.‖ "Although the opinions of experts," says this distinguished jurist, "are generally regarded as entitled to more weight and consideration than those of other witnesses, upon questions of mental soundness and capacity, yet it has been held, the jury are to give them only such weight, in deciding the case upon the whole testimony, as they think them fairly entitled to have. And when we consider the conflicting character of testimony coming from experts; and often its one-sided and partisan character; and above all, the tendency of the most mature and well-balanced minds, to run into the most incomprehensible theorizing and unfounded dogmatism, from the ex-

* See Greenleaf on Evidence, § 440; per Shaw, C. J. Commonwealth v. Wilson, 339.

* Mind and Matter; or Physiological Inquiries, 105.
† Chapter xxx.
‡ Medical Jurisprudence of Insanity, 4th ed., § 45.
§ Traité de Médecine Légale, tome i. p. 360. Paris, 1848. See also Briand, Manuel de Médecine Légale, p. 542. Paris, 1852.
‖ Redfield on Wills, 2d ed., part i. pp. 155–156.

clusive devotion of study to one subject, and that of a mysterious and occult character, we cannot much wonder that some of the wisest and most prudent men of the age are beginning to feel that the testimony of experts is too often becoming, in practice, but an ingenious device in the hands of unscrupulous men, to stifle justice, and vindicate the most high-handed crime."*

We have dwelt in this article on the rights and duties of experts because, as has been said by a competent authority, the testimony of medical men, as such, is purely of this character. The great responsibility resting on this class of witnesses will be apparent when we consider that in the most intricate and important cases, juries are almost helplessly dependent on their assistance. In consequence, however, of the mysterious and recondite nature of the subjects which they are often required to elucidate, the soundness of their mental processes and the correctness of their conclusions cannot always be so effectively tested by legal examination as to make the merits of the case clear to the twelve plain men who are to determine it. It is proverbially hard to decide when doctors disagree, and when two contradictory theories are advanced by eminent medical men, each of which is carefully elaborated and supported by great learning, experience and ability, it is not strange that common sense and judicial acumen should be equally at fault, and that the doubts which often perplex the panel should sometimes befog the bench. The fact that notwithstanding the difficulties of the subjects discussed by experts, and the temptations to which they are naturally exposed, their moral and intellectual honesty must to a great extent be taken upon trust, renders their testimony less clear and decisive than that of witnesses who are affected by no such disturbing causes, and whose evidence being only the report of the senses, can be subjected to the most rigid and searching scrutiny. Then, too, the facts which the expert is expected to elucidate are generally derived not from his own experience, but from the testimony of persons who are either incompetent to observe closely, or are unable to report with accuracy the results of their observations. Thus, the opinion of the expert being based on defective premises, will be itself defective. And this is an important cause of the weakness and insufficiency of this kind of evidence. Moreover, being called by an interested party to express his views in relation to a question arising in a case, it is almost impossible for him to preserve a rigid impartiality. It is obvious, from its subtle and often unconscious influence upon the mind, that bias is more likely to color a witness's opinions than to distort his statements of fact, and in weighing the testimony of biassed witnesses a distinction has been observed. "Such a witness," it is said, "is to be distrusted when he speaks to matters of opinion; but in matters of fact, his testimony is to receive a degree of credit in proportion to the probability of the transaction, the absence or extent of contradictory proof and the general tone of his evidence."*

The ordeal through which the medical expert must pass in the course of a protracted examination will test severely his talents and acquirements, the evenness of his temper, as well as the soundness of his judgment. At such a time he is thrown upon his own resources, with no opportunity to refer to his books, to consult his professional brethren, or to take much time for reflection. Especially is he likely to realize that the strongest opinion may lose something of its vitality when it is subjected to hostile criticism, and the grounds of it are rigidly scrutinized, and the dogmatist may find that his cherished theory, instead of being a fresh and living conviction, is only a petrified prejudice. But the master of his profession who approaches the examination of the question at issue in the spirit of fairness and impartiality, will have the satisfaction of knowing that his learning and ability are appreciated by the court and jury, and are of essential service in the administration of justice; that his own faculties are sharpened by the experience, and, in view of these facts, he will cheerfully endure the annoyance which is inseparable from forensic discussion.

* Redfield on Wills, 2d ed., part i. p. 155.

* Greenleaf on Evidence, 9th ed., vol. i. § 440 a.

Dr. Letheby says it is highly probable that the largest amount of muscular force is derived from the hydrocarbons of our food; not that the nitrogenous matters of it may not also be a source of power; but there is no necessity, as Liebig supposes, for their being previously constructed into tissue. The experiments of Mr. Savory, in fact, show that rats can live and be in health for weeks on a purely nitrogenous diet, and it is nearly certain that under these circumstances the nitrogenous matters are mostly oxidized without entering into the composition of tissue.—*Medical and Surgical Reporter.*

Medical and Surgical Journal.

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RIGHTS AND DUTIES OF MEDICAL EXPERTS.

The communication on "Medical Evidence," with which we have the privilege, as a personal favor accorded to us, of occupying a large share of this number of the Journal, will be welcomed by our readers as a tribute of kindly counsel and instruction from an able member of a sister profession. To those who have no time for any but medical reading, we would say that the author of the article is well and favorably known in literary circles as a contributor to various publications.

As a compliment to, and the complement of, the legal advice bestowed on us to-day, we have transcribed for these columns that portion of the unpublished Address of Dr. E. H. Clarke (from which we have before quoted) that relates to pretty much the same subject as that treated by Mr. Young.

* * * * Let us leave these abstractions and lofty ideals—would they were oftener before us—and look at some of the practical matters that grow out of human attempts to realize them, and with which you are concerned because you are physicians. In the court-room, for example, where justice is sought and secured, physicians are often brought into intimate relations with lawyers. There law and medicine stand side by side. There meet those who are trained to investigate the truth in very different ways.

I know that lawyers are sometimes accused of prevarication, subterfuge and chicanery, that have pointed many a sarcasm; of following the letter which kills and denying the spirit that quickens; of trying to weight the scales of Justice, till good men have doubted whether law and right were the same. And so physicians have been charged with pretension, mystery, charlatanism and deceit, that would render them, like Cicero's haruspices, ashamed to look each other in the face. But this is only saying that there are pettifoggers in law as well as quacks in medicine. But besides all these, I rejoice in the belief that there are men, and not a few of them, who are in the highest sense worthy of the name of lawyers and physicians, and who in separate ways labor for a common and a noble end. It is of these that I am speaking. Therefore, whenever you enter a court room you will never forget, however unworthy may be the actors and however imperfect may be the machinery, that it is the place where Justice sits and truth is sought.

None enter the court-room who have a more delicate and responsible duty to perform than the medical expert. Questions of sanity, of health and disease, of testamentary bequests, of the character and effects of injuries and maladies and the like, are often submitted to him for advice and sometimes for decision. Recollecting Blackstone's definition of law, and the fundamental principle of your science, it is plain that your only duty, as a medical expert, is to aid the discovery of truth. Your position is not that of an advocate or a partizan. It is a judicial one. When summoned into court never forget this, and so never take sides with either of the contending parties. Your party is that of justice and truth. As a witness you will testify, like other witnesses, only to what has come under your personal observation. As an expert you are expected to weigh evidence, draw inferences, judge of testimony and form and express opinions. When doing this, you should follow the methods of observation and investigation that you have learned in the laboratory and the hospital. These methods are not the same as the lawyer's, because you do not deal with the same sort of facts that he does, but they are as truth-giving as his.

Unfortunately, under the present organization of our courts, medical and other experts are summoned and paid by one of the contending parties. It would be better if they were appointed by the judges, on the nomination of the counsel, and paid by the contestants or the State; or if in some other way the temptation of an expert to become the advocate of the party who employs him could be removed. Even doctors have mortal weaknesses, and it is not wise to tempt them too much. But you must take things as they are. And as they are, when summoned to court as an expert, you will be summoned by one of the contending parties, paid by that party, and expected to testify in such a way as to enhance the chance of that party's winning. This does not alter one particle what I have previously said. Although you may be summoned by one side and paid by one side, and importuned by counsel to advocate that side, yet you do not belong to that side, nor to any side, save truth's. The

moment you take the witness-stand you discard all partnership.

The dread which medical men are apt to entertain of a court-room arises, not so much from an interruption of their business or an unwillingness to testify, as from a fear of the cross-examination. But this is an unworthy fear. Recollect the noble position of an expert as the impartial interpreter of the truth, and you will have no such dread. Falsehood and pretension, not truth and honesty, dread the trial of a cross-examination. Indeed, the more acute and searching a cross-examination is, the more will it bring into clear relief the truth of your testimony. Never pretend to more than you know. Express your opinions simply and briefly. When you are in doubt, say you are in doubt. When you are ignorant, dare to say "I do not know." When you know, give utterance to the truth. Do this, and no cross-examination will ever trouble you. Simple truthfulness is more than a match for the astutest cross-examiner; and a pettifogger fears the truth more than he does the devil.

It is well to recollect, in this connection, that when on the witness-stand, all statements should be made in the simplest language. Technical terms should be avoided as far as possible. Sounding and learned phrases are so apt to be the cloaks of pretension that they render the lawyers suspicious. To call a sore throat, as I once heard it called, a follicular inflammation of the posterior pharyngeal mucous membrane, might dazzle a jury by excess of light, but would not contribute to your comfort during a cross-examination. I know that lawyers are not unfrequently accused by medical experts of being uncivil, over-bearing and strategetical in their examinations. When they are so, it is generally as much the fault of the expert as of the lawyer. If the former is honest and intelligible, the latter will be civil. No lawyer will injure his case by crowding or brow-beating honesty and truth. He will no more run a tilt against them than a dissector would thrust his scalpel against a bone.

While the medical expert has delicate and responsible duties to perform, the character of which I have imperfectly indicated, it is not to be forgotten that he enjoys certain privileges or rights, which are not to be invaded. A knowledge of these may serve to protect you against frivolous or undue encroachments on your time. One of these is the following: When any person, physician or otherwise, is duly summoned as a witness, he is obliged to respond to the summons and appear when the case is tried. No excuse, except absolute inability, is accepted by the court. An expert, like an ordinary witness, is obliged to appear when summoned, and to answer whatever questions are put to him. But the court does not compel him to do more than this. It does not compel him to acquire any additional information in order to qualify himself as an expert. It does not even compel him to hear the evidence. If he chooses to do so, he may remain outside of the court-room, till he is called to the witness-stand. He is not obliged to make any sort of preparation. If, therefore, you do not wish to appear as an expert (if you have reason to believe that you will be underpaid), you need only state to the summoning party, that you shall decline to make the necessary preparation, and you will not be called. An unwilling expert is an undesirable witness. But this and similar matters belong to the details of the administration of the law, and I have no time to dwell upon them. The one thing which I wish to impress upon you, and which I trust you will never forget, is that when you step upon the witness-stand as an expert, you are to lay aside all partizanship and prejudice. Whatever may be the opinion you have formed from the facts presented to you, that opinion and the whole of it you are bound to express, whether it makes for or against one side or the other. You are to stand up, not as an advocate for the side that pays you, but solely as the witness, advocate and interpreter of the truth.

Criticism.—We have been told that the editorial pen of Mr. Jefferson Brick was the *shears*. But the judicious clipping of extracts involves some discrimination, and the skimming of many pages. An easier task was that of the *redacteur* of a medical journal, who made his "leaders" out of his book notices, which presented a cheerful uniformity of laudation. Some writers would seem to expect that their lucubrations should receive this sort of bibliographical review. To comply with their demands and adopt their views into the general practice would be to abolish criticism.

When one commits his thoughts to print, he may still claim their ownership—he continues to hold the "fee" of them. But they have become public property to the

extent that others may have the use of them, and may freely investigate their soundness. Whatever is published, is by the implication of usage, as the etymology of the term suggests, offered to the public for the most searching scrutiny, and for the free and full expression of the results of examination. If the reviewer must say that everything he notices is white, though it be black, that it is good, when it, in reality, is bad, that it is true, however inaccurate inspection may prove it, then, bidding farewell to criticism, we might treat all book-notices as mere advertisements, and demand payment for them as such.

On the other hand, as the wayfarer, though he may concern himself with the state of the highway, has no right to enter the domicil of the abutter, and ridicule his domestic arrangements, or condemn his mode of transacting business, so the reviewer is bound by all the rules of comity and propriety to confine his remarks to the literary or scientific performance in hand; and has no shield of position to shelter himself behind, in order to attack personally the author whose work he is describing, or to abuse *him* in any capacity. He may cut to pieces, if he can, the book or article offered for dissection, but must always keep diplomatic courtesy on his side.

These remarks are suggested by the controversy which has lately been rife between Dr. E. S. Gaillard, of the *Richmond and Louisville Medical Journal*, and Dr. T. S. Bell. The former, a few weeks since, reviewed *a paper* written by the latter. The review was severe, but as we read it, quite parliamentary, so to speak, both in its language and scope. The latter writer, in a reply, appears to us to attack *Dr. Gaillard*. Dr. G. prints a rejoinder as a *supplement* to the regular pages of his Journal, in which response he seems to us to keep still within the bounds of dignified controversy.

The Children's Hospital. *Mr. Editor*,—The managers of The Children's Hospital hereby announce that they have purchased and furnished for their use the house No. 9 Rutland Street, and they are now prepared to receive patients for treatment. This institution was organized by a number of benevolent gentlemen of Boston in January last, and received an act of incorporation from the Legislature the following month.

Its object, as has already been announced, is, primarily, the medical and surgical treatment of the diseases incident to childhood, as well as the attainment and diffusion of knowledge regarding them. It is, however, also proposed, at some future day, to instruct young women in the duties of nurses, both for children and adults.

It will be governed and controlled by a board of officers, the present incumbents of which are:—Nathaniel Thayer, President; George T. Bigelow, Vice President; John G. Wetherell, Treasurer; and twelve managers, whose names have already been announced in the public papers.

The hospital is intended by its founders for the sick poor of the city of Boston between the ages of 2 and 12 years, and such only will be received as free patients. Those, however, able to pay for treatment, and residents of other places than Boston, will be received on the payment of such sums and under such regulations as may be determined by the Board of Managers. Applications for admission will be received at the hospital on any week day at 9 o'clock. Patients of suitable age suffering from immediate accident will be received at any time, and whatever may be their place of residence.

For the Board of Managers,

Francis H. Brown, *Secretary*.

The Prognosis of Bright's Disease.—From a paper on this subject, read before the New York County Medical Society by Austin Flint, M.D., and published in the *New York Medical Journal*, we make the following selections:—

I propose to arrange my remarks under the following heads:—

1. The prognosis considered with reference to the different renal affections constituting Bright's diseases.

2. The prognosis considered with reference to the symptoms and complications in Bright's diseases; and,

3. The prognosis considered with reference to the treatment of Bright's diseases.

1. *The prognosis considered with reference to the different renal affections constituting Bright's diseases.*—A question meets us at the threshold of the first of these three divisions of the subject: What are Bright's diseases? I say Bright's *diseases*, not Bright's *disease*, following, in this, the example of T. Grainger Stewart in his late

valuable treatise. The name *Bright's disease*, applied to varied lesions of the kidneys, implies their unity. The doctrine that these varied lesions, in fact, denote different stages, phases, modifications, or types, of one disease, was advocated especially by Christison and Frerichs, whose works were published within a few years after Bright's discovery, although Bright himself held a different opinion. Few pathologists, at the present moment, hold to the correctness of this doctrine; and the question now is, not whether the name Bright's disease embraces a single affection or several affections, but how many and what are the different affections to which this name has been applied? * * *

1. Inflammation within the convoluted uriniferous tubes may be considered an individual disease pretty well established. It is too limited a view of the affection called, after Johnson, desquamative nephritis, and by Dickinson, tubal nephritis, to consider the inflammation as always acute. Doubtless here, as in other situations, the inflammation may be either acute, subacute or chronic.

2. The morbid condition described by Bright, and called the "smooth white kidney," should, as it seems to me, for the present, be reckoned as an individual disease. The theory which attributes this condition to inflammation within the tubes is hardly so well established as to warrant its exclusion as a separate affection. Even admitting that it is an inflammatory and an intratubular affection, its anatomical characters seem to be sufficient to constitute it a distinct disease.

3. The fatty kidney appears to have been rather unceremoniously thrust out of the group of Bright's diseases by some pathologists, on the ground either that this anatomical condition is due to a fatty degeneration of inflammatory products, or that it is merely incidental to other morbid affections of the kidneys. These reasons must be regarded as resting on inference, not on demonstration; the characters, both gross and microscopical, of the fatty kidney are highly distinctive, and an analogous anatomical condition of a fellow-gland, the liver, is recognized as a distinct affection. Hence, as it seems to me, for the present, at least, the fatty kidney is entitled to an independent position among the Bright's diseases, admitting that this, as well as each of the other affections, does not invariably exist alone, but may be associated with other lesions.

4. That the affection known as the fibroid, the contracted or atrophied, and the cirrhotic kidney, is to be regarded as holding a distinct place among Bright's diseases, is admitted by most pathologists, although with regard to this affection, as well as with regard to its analogue, cirrhosis of the liver, there is room for discussion and difference of opinion respecting the morbid processes of which this lesion is the result.

5. Finally, no one doubts the individuality of the affection called the waxy, the lardaceous, or the amyloid kidney, notwithstanding the mooted questions concerning this morbid condition.

Here, then, are five renal affections which have claims to be recognized as distinct, constituting, collectively, with our present knowledge, the group of Bright's diseases.

Now, as regards prognosis, these different diseases are by no means on the same footing. What is true of one, respecting the probability or possibility of recovery, is not true of the others. Undoubtedly a simple inflammation of the uriniferous tubes may end, if indeed it do not generally end, in recovery, leaving the structure of the kidneys intact; and this result may be expected, be the inflammation acute, subacute, or chronic. But it is probable that, in certain cases, this affection leads to the second of the five diseases, namely, the smooth white kidney, and perhaps also to the third of the five diseases, namely, the fatty kidney. Does recovery from the two diseases last named ever take place? Our present knowledge does not enable us to answer this question positively. * * *

Relatively considered, the prognosis is by far the most favorable, if only the first of these different affections exist, and of the four remaining affections, the prognosis is the most unfavorable if the contracted or cirrhotic kidney be the existing disease.***

The prognosis in Bright's disease is affected by the successful employment, in certain cases, of means to prevent impending death. It can hardly be doubted that the conditions giving rise to uræmic coma and convulsions are sometimes removed by therapeutical interference, and the immediate danger of life averted. This happy triumph over death is sometimes followed by complete recovery from the renal affection. Were it admissible, on the score of time, I could cite illustrations of these facts from my own clinical experience. It is not often that medical practice furnishes occasions which call more urgently for the employment of therapeutical resources than the treatment of uræmic coma and convul-

sions. Whether the patient shall survive, or die within a few hours, may depend on the promptness and efficiency with which these resources are employed. To withhold or delay them is not less culpable than to allow suffocation to take place from œdema of the glottis without resorting to laryngotomy or tracheotomy. Alas for the safety of the patient, if the physician be wanting in appreciation of the remedial potency of hydragogue purgatives, and the hot air or vapor bath! I will go a step further, although therapeutical details are here out of place, and say that it may be extremely fortunate, as regards the safety of the patient, if the physician appreciates the value of a particular remedy, under these circumstances. I allude to elaterium. Again, hydrothorax and pulmonary œdema may occasion imminent danger of death. Here, too, an adequate appreciation of the same therapeutical resources may be of the same importance as regards the safety of the patient. And, in this connection, I cannot forbear distinguishing the particular remedy just named. Did time permit, I could cite instances which exemplify the wonderful efficiency of this remedy in arresting death by apnœa when threatened by hydrothorax and pulmonary œdema. * * * * * *

Dr. G. T. Elliot, Jr. (at a meeting of the Medical Society of the County of New York), expressed his yearly strengthening conviction that a favorable prognosis might, much oftener than he had once supposed, be made in cases of albuminuria in puerperal convulsions. Though successive pregnancies should exhibit severe convulsions, with the urine highly albuminous and of low specific gravity, yet at the end of twenty years' hospital practice he felt that, if the patient could only be carried well through the labor, the prognosis was much better than, five years ago, he should have dared to hope. He had followed a large number of such cases through.

Dr. John O. Stone could indorse the President's remarks concerning puerperal albuminuria. He had made a point of following up all such cases as had occurred in his practice; and he deemed this very important, that the profession might have the benefit of trustworthy statistics of the results. He would mention one striking case. Ten or eleven years ago he was suddenly sent for to visit a woman in confinement. All pains had ceased, and her medical attendant suspected rupture of the uterus. She was terribly exhausted, and had lost the sight of one eye. The urine showed abundance of albumen. The patient was stimulated and the baby was born, but died soon after. The woman then came under the speaker's care. For six years she had albuminuria; but for the last four years this had not appeared. She had not again become pregnant.

The Society then adjourned.

Scleroderma.—Great difficulty has been experienced to give a proper definition of this strange disease, for up to the present time only about forty cases have been reported, whose history and symptomatology offer considerable discrepancies. But few of them have been submitted to *post-mortem* examination, owing to their very chronic course, and to the circumstance that a fatal termination is generally caused by complications. Neither age nor sex is exempt from this disease, and the most various causes have been assigned for its origin. The principal and distinctive feature of this affection is evidently the presence of marked induration of more or less portions of the cutaneous surface. In none of the cases reported above could it be positively ascertained whether the inflammatory process entered as a characteristic element into their pathology, although the rapid development of the dermal hardness in Case No. II. hardly admits of any other interpretation. All of them pursued a chronic course, and showed a singular inveteracy without greatly interfering with the general health. According to the author already quoted, the induration may either depend on the increase of the connective tissue of the corium alone, or that besides this exuberant growth in which also the elastic fibres may participate, the subcellular tissue may be changed into a hard mass. In either case the adipose layer is finally removed. As far as any conclusion can be arrived at concerning the pathology of this disease from two of the cases just related, in view of the previous history of the patients, the mode of invasion, and the effects of treatment, some support is lent to the explanation ventured by several distinguished pathologists who ascribe the induration of the tegumentary tissue to lymphatic infiltration. In the absence of a description of the morbid anatomical appearances, nothing of course can be elicited which would either corroborate or refute the opinion of Rasmussen, who affiliates scleroderma with Elephantiasis Arabum. — *American Journal of the Medical Sciences.*

NOMENCLATURE OF DISEASES.—It is quite certain that the "Nomenclature" [issued by the London College of Physicians] will need considerable emendation before it can be recommended for final adoption. A reviewer of it in the number of the Boston Medical and Surgical Journal (May 27) whence we have derived the foregoing account [of the meeting of the American Medical Association], referring to the deputation which went to the Government to secure the gratuitous distribution of the "Nomenclature," quotes the plea urged by the spokesman, Sir Thomas Watson, "that many of the profession, especially in the provinces, could not, from their needy circumstances, be expected to buy the book, although called upon by the law to give gratuitous certificates of death," and naturally adds that this exhibits "a picture of the pitiable condition of the profession hardly to have been expected even in England." In fact, it ought neither to be expected nor to have been expressed; for it was, to say the least, a very great exaggeration to state that many, if any, of the profession could not, if it were desirable, afford to pay the few shillings the book was sold for. The true and indeed the sole ground for the application was not the poverty of the applicants, but the justice of their demand. Called upon to perform a public, and often an unpleasant duty without any remuneration whatever, they surely had the full right to be put in the possession of any instrument enabling them to execute it effectually.—*London Medical Times and Gazette.*

CAUTION TO OVARIOTOMISTS.—Prof. Braun, of Vienna, relates a case of ovariotomy (*Wiener Wochenschrift*, Nos. 23 and 24) which proved fatal from hæmorrhage twenty-three hours after the operation. At the *post mortem* a piece of sponge was found which had been left in the cavity of the abdomen, but all present agreed that it had in no wise contributed to the fatal issue. As all the sponges used were numbered, it is supposed that this piece must have broken off from one of them. At all events, had the patient lived it might have given rise to unpleasant complications. We presume this is the case which gave rise to the report that Prof. Billroth had left a sponge behind after ovariotomy, and for spreading which he brought an action against Dr. Kraus, editor of the *Wiener Med. Zeitung*, notwithstanding the apologies and regrets for the error which he offered to publish.—*Ibid.*

NEW RESEARCHES IN CEREBROSCOPY.—M. Bonchut, we learn from the *Union Médicale*, has just presented to the Academy of Sciences of Paris, through M. Dumas, his researches on Cerebroscopy, which he has offered for competition for the Montyon Prize in Medicine and Surgery. He epitomizes his conclusions as follows:—

"The diseases of the spinal cord, such as acute mystitis, spinal sclerosis, locomotor ataxy, &c., produce usually a congestive lesion, and subsequently atrophy of the optic papilla."

"The lesions of the optic nerve produced by spinal disease are the result of a reflex ascending congestive action, and they take place by the intercommunication of the great sympathetic."

"The presence of an hyperæmia of the optic nerve of a vascular diffusion over the papilla, and of a partial or total atrophy of this part coinciding with feebleness or numbness of the legs, indicates the existence of acute or chronic disease of the spinal cord."—*Medical Press and Circular.*

HYPODERMIC INJECTION OF MORPHIA IN STRANGULATED HERNIA.—Dr. Ravoth relates some cases with the view of calling the attention of practitioners to the great assistance to the taxis which may be derived from a subcutaneous injection of morphia, which facilitates the reduction of the hernia surprisingly.—*Berliner klin. Woch.*

THE CEREBELLUM OF THE INSANE.—Dr. Meynert stated at a recent meeting of the Vienna Society for Psychiatria and Forensic Psychology, that insane brains had more cerebellum, proportionally, than sane; and that insane females had more than insane males.—*Medical Record.*

GLYCO-INOSINE.—A preparation, under this name, is sold in Europe for sweetening acidulous wines, at the rate of one thaler per pound. On examination, it proves to be common air-slaked lime.—*Ibid.*

APPOINTMENTS AT THE CHILDREN'S HOSPITAL.—The Board of Managers have appointed the following as the Medical Staff:—For Physicians, William Ingalls, M.D., and Francis B. Greenough, M.D. For Surgeons, Francis H. Brown, M.D., and Samuel W. Langmaid, M.D.

WHY is an expert's well-paid opinion like a contradiction? Because it is a *gainsay!*

Medical Miscellany.

CARNEY HOSPITAL.—The following circular has been sent us by Dr. Bowditch:—

BOSTON, July 6, 1869.

DEAR SIR,—The undersigned, members of the Medical and Surgical Staff of the Carney Hospital, beg leave to lay before you the claims that hospital has upon the benevolent of this community.

It was built by funds given by the late Andrew Carney, Esq., who *intended* to have properly laid out the grounds around it and to have sufficiently endowed it. Unfortunately Mr. Carney died without doing so. The hospital therefore remains in debt, causing great anxiety and labor to the excellent Sisters of Charity who devote themselves to it. The hospital is finely situated on the brow of Mt. Washington Heights in South Boston, overlooking the city and its adjacent harbor, and also commanding extensive views of the neighboring country.

It has several large wards and many private rooms, in which latter *any regular physician in the city can attend his patients as he would in a hotel, subject of course to the rules of the institution.* In addition to the wards for acute and chronic diseases and surgical cases, there are also a lying-in ward and one for children. The hospital is not strictly a Catholic institution, although under the fostering care of the Sisters of Charity. Every patient, *by the express will of the founder*, has a perfect liberty to see clergymen of any denomination he or she may choose.

It has been open since June, 1863, but only in the new parts since 1868. Six hundred and sixty-five patients have been under treatment. Forty is the average number now under its care. The Sisters in attendance will always be happy to show the arrangements of the house to those who may wish to visit it, and if any one feels disposed to contribute to its means of usefulness, communication may be held with either of the undersigned.

Consulting Board.

H. I. BOWDITCH, M.D., 113 Boylston St.
WINSLOW LEWIS, M.D., 2 Boylston Place.
C. G. PUTNAM, M.D., 24 Marlboro' St.
M. K. HARTNETT, M.D., 131 Summer St.
D. McB. THAXTER, M.D., 502 Broadway.
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S. W. LANGMAID, M.D., 1 Park Square.
S. G. WEBBER, M.D., 602 Tremont St.
JOHN HOMANS, M.D., 31 Boylston St.

AN EARLY MENSTRUATION.—T. H. Turner, Union City, Tenn. (*N. Y. Medical Journal*), reports the case of a girl, 8 years old, weighing 110 pounds, who has the symmetry and beauty of a miss of 16. Every month of her entire life she has menstruated regularly, the flow continuing 24 hours, and always attended by a slight headache. She weighed 8 pounds when born, and had the proportional symmetry of person now seen in her case.—*N. Y. Medical Record.*

As an abstract fact, there is little difference between the $60 medical school and the same institution at double that amount; but the importance of the action of the American Medical Association lies in the *value of the admission that a reform is necessary.—Leavenworth Med. Herald.*

MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

PUBLISHERS' NOTICE.—Readers of the JOURNAL will doubtless have noticed that during the publication of the volume which is this day brought to a close, extra pages have from time to time been given. This has been done to make room for the press of original and other matter which occasionally occurs. The number of extra pages thus issued, it will be seen, is 64. It has occurred to the publishers that a convenient and proper way is now opened to remedy an evil which has existed from the beginning of the work—viz., the commencement of the volumes in February and August instead of January and July. They therefore beg leave to state now in advance, that it is proposed to let these 64 pages—equal to four weekly numbers—and any other extra pages which may be required in Vol. IV., answer as an offset to a shortening of one month's time in that volume, allowing the succeeding volume to begin with the calendar year in January.

NOTICE.—Part LIX. of Braithwaite's Retrospect was mailed from this office on the 22d inst. to the members of the Massachusetts Medical Society who have paid their assessments for the year 1869-70. Members who have paid and do not find the book at their post office, are requested to forward their vouchers to the Librarian, care of David Clapp & Son, Medical and Surgical Journal Office, 334 Washington St., Boston.

Retired Members of the Society wishing the publications of said Society, are by By-law required to notify the Librarian as above, personally or by writing, once after the Annual Meeting.

ERRATA.—Page 455, second paragraph, for "part," read *fact*. Second column, for "medicine," read *medical*; for "Minister," read *Ministre*.

DIED,—At Lancaster, N. H., July 17th, Dr. Jacob E. Stickney, aged 73 years.—In Baltimore, July 15th, Dr. William B. Mosher, aged 72.

DEATHS IN BOSTON for the week ending July 24, 113. Males, 58—Females, 55.—Abscess, 1—accident, 6—anæmia, 1—apoplexy, 2—disease of the bowels, 2—congestion of the brain, 2—disease of the brain, 4—inflammation of the brain, 2—bronchitis, 1—cancer, 1—cholera infantum, 28—consumption, 12—croup, 2—diarrhœa, 3—dropsy, 3—dropsy of the brain, 1—drowned, 1—dysentery, 3—erysipelas, 1—typhoid fever, 2—disease of the heart, 3—infantile disease, 4—intemperance, 1—disease of the kidneys, 1—inflammation of the lungs, 4—marasmus, 10—old age, 1—paralysis, 2—pyæmia, 1—rheumatism, 1—syphilis, 1—unknown, 4—whooping cough, 2.

Under 5 years of age, 67—between 5 and 20 years, 3—between 20 and 40 years, 19—between 40 and 60 years, 9—above 60 years, 15. Born in the United States, 91—Ireland, 17—other places, 5.